FINANCIAL DECISION MAKING: A STUDY OF BOARD ROOM DECISION-MAKING DYNAMICS

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Abstract

***Objective**: The research involved a board room role-playing exercise in financial decision making that challenged students to take ethically corrective action to overturn a bank CEO's ethically questionable decisions. Prior to the role-play, some students received training about the dangers of heuristics and others received training in ethical decision making.* ***Background**: In group decision making, the obedience to authority heuristic can play a major role in the economic and ethical correctness of financial decisions. During the recent financial crisis many chief executive officers' financial decisions that proved ethically wrong were supported by their boards of directors.* ***Method**: A pre-test – posttest quasi-experimental design utilizing the Defining Issues Test of moral reasoning and role-playing was employed in a university business class. Outcomes of group decisions were further analyzed for ethical correctness and legal compliance.* ***Results**: While the student "board members" in all sample groups properly identified the unethical nature of the CEO's actions, each group was significantly influenced to diverge from taking appropriate corrective action by the rationalizations presented by the CEO. Specific training received before the role-play had little apparent effect on student behavior to take corrective action.* ***Conclusion**: The results seem to indicate that obedience to authority can have a profound influence on decision makers to support unethical behavior in group settings.* ***Application**: Along with teaching students how to use an ethical decision-making framework, students and employees need to be trained in the dangers of organizational pressures, such as the obedience to authority heuristic, in order to become somewhat inoculated against their insidious influences.*

***Keywords:** business education, business ethics, business schools, corporate governance, corporate decision making, Defining Issues Test, ethical judgment, group dynamics, heuristics, moral development, teaching*

Introduction

Since the recent financial meltdown, corporate boards have come under increasing scrutiny for their roles in poor decision making that, in many instances, reflected neglect of fiduciary responsibilities. Did weak compensation packages for board members cause a neglect of these fiduciary responsibilities? Were board members simply unfamiliar with the financial details of the companies they serve? Were they swayed to make ethically questionable decisions by personal bias? Or were there other organizational influences that affected their decision making, i.e. heuristics?

This research was designed to address the latter of these possible influences on board members' decision-making abilities, i.e. potential adverse influences of

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organizational heuristics – in particular the authoritative influence on decision making referred to as *obedience to authority*. The objective of the research was to determine the degree to which the obedience to authority heuristic affects individuals in group decision-making processes. Specifically this study assesses the abilities of respondents participating in a group decision-making process to make morally correct choices when influenced to do otherwise by a person in a position of authority. Undergraduate students in a business communications class at a midsized Midwestern university were put into a simulated board room scenario wherein they were tasked with the responsibility of ensuring that morally correct decisions be made with regard to accurate financial public disclosure and fulfillment of fiduciary responsibilities to stockholders and other stakeholders. The "board members" were influenced to do otherwise by a forceful chief executive officer.

Theoretical Review for the Study

The best-known model of moral judgment is Kohlberg's (1969, 1981) model, which primarily addresses the formal structures (stages) of ethical development in the cognitive developmental process. Kohlberg focused on ethics in relation to society (i.e., laws, roles, institutions, and general practices) instead of personal, face-to-face relationships that occur in particular, everyday dealings with people—that is, on macro morality instead of micro morality (Rest, Narvaez, Bebeau & Thoma, 1999). Kohlberg's emphasis was on "right" as a concept of "justice" rather than "good" based on individual standards of personal perfection, virtue, or theology. Kohlberg's six stages of moral development can be characterized as follows (Jeffrey, 1993, p. 87):

1. Punishment and obedience orientation.
2. Naïve instrumental hedonism.
3. Good-boy or good-girl morality of maintaining good relations, approval of others.
4. Authority maintaining morality.
5. Morality of contract, of individual rights, and democratically accepted law.
6. Morality of individual principles of conscience.

Rest's (1979) theory of cognitive moral development recognizes Kohlberg's developmental levels as more akin to schemata than to stages. Whereas Kohlberg's *stages* indicate a sequential step-by-step advancement from one level to the next highest level of decision making, Rest's *schema* refer to different levels of moral decision making that can be used again and again depending on the context of the situation being analyzed. Rest et al. (2000) postulated that these schema structures in moral thinking development were directly related to Kohberg's stages: the Personal Interest schema derives from Kohlberg's stage 2 and 3; the Maintaining Norms schema derives from Kohlberg's stage 4; and the Post-conventional schema derives from Kohlberg's stage 5 and 6. Rest's schema theory conceptualizes cognitive moral developmental judgment as all encompassing concept-driven ways of thinking based on experience. Cognitive moral development will increase the number of schemata available for use in solving a dilemma while at the same time increasing the level at which each successive schema is developed. However, the newer, more advanced schema doesn't necessarily usurp all previous lower-level schemata. Given the right set of circumstances, an individual may utilize a previous schema to process a dilemma (Rest et al., 1999).

Moral judgment is only one part of a model of ethical behavior that Rest called the Four-Component Model (1979). The basic idea behind the four component model is that four inner psychological processes together give rise to outwardly observable behavior. Moral *sensitivity* involves the ability to interpret a situation, imagining cause-effect chains of event, and awareness that there is a moral problem when it exists. Moral *judgment* has to do with an individual's capabilities for judging which action would be most justifiable in a moral sense. Moral *motivation* involves the individual's commitment and willingness to take the morally correct course of action, value moral values over other values, and take personal responsibility for the moral outcomes of one's decision. Moral *character* involves persisting in a moral task, having courage to consistently adhere to the morally correct decisions, overcoming fatigue and temptations, and implementing subroutines that serve a moral goal (Rest et al., 1999).

Heuristics and biases such as loss aversion, sunk costs and framing effects play a major role in individual decision making that result in decisions that do not conform to basic economic theory or are otherwise illogical reasoning (Kahneman & Tversky, 1984). Obedience to authority, social proof, false consensus effect, over optimism and over confidence, and the self-serving bias also lead individuals to make ethically incorrect decisions (Prentice, 2004). The famous experiments by Stanley Milgram (1963, 1974), which demonstrated people's capacity to inflict extreme pain when influenced to do so by a forceful authority figure, seem to indicate that humans have an innate predisposition to obey authority. This excessive subservience of agent to principal can also adversely affect individuals in collective groups making decisions about corporate management issues.

While the obedience to authority heuristic is often extremely influential in decisions made by subordinates to a higher authority, in boards of directors the directors presumably know that they are not subordinate to a board chairman, the company president or chief executive officer. Does the relative equal status of board members and management executives preclude the potential harmful effects that can result from an ethically biased management executive? Does the obedience to authority heuristic still come into play in such collective decision making?

Snell (1999) reported on a large study conducted among businesses in Hong Kong that investigated how staff tackled ethical dilemmas at work. Findings imply that if corruption originates at the top, codes of conduct may have limited effect in countering it. The author compared his findings with cases discussed by Jackall (1988) in the United States and found that, even in American businesses, the concessions that subordinates extend to authority figures in decision making are the same.

Gandossy and Sonnenfeld (2005) found in their review of behavioral studies literature that decision-making process of boards of directors and the decision-making styles of executive officers are heavily influenced by personal values, shared beliefs and various pathologies of group dynamics. Group-think, obedience to authority, bystander apathy and confused incentive systems all add to ethically incorrect decisions in corporate governance decisions. The authors proffer ten ways to overcome group decision-making pathologies identified in the article related to high-level executive and board teams. They suggest, among other ideas related to accountability and appointing directors, that such techniques should embrace the idea of fostering a culture of open internal dissent (devil's advocate). "The CEO and the board can set a tone which welcomes internal feedback so that problems can be identified and corrected before they become major integrity, financial and public relations disasters" (p. 240).

According to Morck (2008), corporate governance structures that include independent directors, non-executive chairs, and fully independent audit committees help to facilitate real debate that can expose poor strategies before they become problematic for a business. Dissenting peers, alternative authority figures, and absent authority figures (in the case of totally independent audit committees), also go a long way in meeting recent reforms mandated by Sarbanes Oxley legislation. No empirical evidence, however, was reported in the article that these reforms actually result in a reduction in ethically incorrect governance decisions.

The influence of herding behavior in the board room was the focus of research conducted by Gonzalez, Modernell and Paris (2006). The authors employed an experiment that simulated a series of board meetings using MBA and non-business school masters degree students. Role-play scenarios involving roles for a CEO and two external directors were created wherein the respondents would evaluate a case vignette and vote sequentially on a course of action to resolve the case dilemma. In all cases the CEO voted in favor of the economic gain for the company regardless of the ethicality of the decision. In the simulations in which the first external director voted in agreement with the CEO, the second external director voted with the majority and tended to ignore their own inclinations to cast a dissenting vote – no matter the ethical correctness of the decision. The results seem to confirm the influence of herding behavior, whether influenced by a forceful CEO or not.

In two other studies that focused on ethical decision making in business management scenarios (Trevino, Weaver, Gibson, & Toffler, 1999; Smith, Simpson & Huang, 2007), researchers determined that the obedience to authority heuristic had profound influence on respondents' decision-making integrity. In the Trevino et al. study, an ethical culture that focuses on unquestioning obedience to authority and employee self-interest was found to be one of two top contributors to effective ethical compliance in corporations; the other being a belief among employees that ethics and compliance programs exist only to protect top management from blame. The Smith et al. study found that despite demands for increased sanctioning of corporate offenders, the threat of legal action does not directly affect the likelihood of misconduct. In that study, managers reported higher prospects of ethical misconduct if ordered to engage in misconduct by a supervisor.

The objective of this research is to determine if individuals involved in a group decision-making situation would be able to withstand the negative influence of the "obedience to authority" heuristic if provided with additional training in either ethical decision making or about heuristics and biases that can negatively affect decision making in organizational settings – including the obedience to authority heuristic. The hypotheses for the study were as follows:

> Hypothesis 1:
> Corporate board members who have been instructed about using an ethical decision-making framework will make ethically correct decisions in fiduciary matters even when prompted to do otherwise by a strong chief executive officer.
>
> Hypothesis 2:
> Corporate board members who have been taught about potential harmful heuristics and biases that can influence decision making will make ethically correct decisions in fiduciary matters even when prompted to do otherwise by a strong chief executive officer.

Methodology

The researcher received approval for this study from the university's Institutional Review Board. At the beginning of the course all students in the class ($n = 25$) were pretested with the revised version of the widely used Defining Issues Test (DIT-2) of moral judgment (Rest et al, 1999). Students were next organized into three study groups: one control group ($n_o = 9$) and two test groups: Test Group A ($n_1 = 8$) and Test Group B ($n_2 = 8$). While the sample sizes for the study discussed in this paper are admittedly small and therefore lack significant statistical power, the study made best use of a convenience sample that served as fact-finding research upon which to launch a significantly larger subsequent research experiment being developed at this time. The convenience sample consisted of students enrolled in the researcher's business report writing class. This next phase of the research will also focus on heuristic influences in corporate governance, but will utilize a larger sample of actual banking industry board members from the Midwest.

The methodology used in the present study was a pretest-posttest control-group design utilizing the Defining Issues Test as a measurement of moral judgment. The revised version of the Defining Issues Test (DIT-2) was used to gather data in this study. The original version of the Defining Issues Test (DIT) is a paper-and-pencil, multiple-choice test that uses ratings and ranking of proposed courses of action that a respondent feels would best resolve a fictional moral dilemma. The DIT presents participants with six moral dilemmas; each dilemma is followed by 12 items for the participant to consider in solving the dilemma. The participant rates and ranks the importance of each item and chooses a course of action to resolve the dilemma. Ratings and rankings are used to derive a participant's score. The most used index of the DIT has been the post-conventional, or "P" score. In the tabulation process, raw P scores are converted to percentages (having a base of 100), and therefore the P percentage scores range from 0 to 95 (Rest et al, 1999).

The new version of the DIT (Rest et al, 1999) has several improvements. The DIT-2 contains moral dilemmas that are more up to date; the original DIT contained dilemmas that related to the war in Vietnam and also contained culturally antiquated terms such as "Oriental" as a reference to individuals of Asian descent. The DIT-2 is also shorter, consisting of five dilemmas instead of six. Instructions for completing the DIT-2 have been improved and the instrument purges fewer subjects for bogus data. And, because of the new N2 index score, the DIT-2 is slightly more powerful on validity criteria. The N2 index has a slightly better Cronbach alpha internal reliability. Based on a 1995 composite sample (n = 932), the Cronbach alpha for the P index equaled .78, whereas for the N2 Index it equaled .83 (Rest et al, 1999). The present study reports both the post-conventional (P) index and the N2 index.

Each of the three student groups elected a board chairman from their ranks and studied a case prepared by the researcher based on a recent Securities and Exchange Commission complaint filed against the CEO of a major national mortgage lender. The names and dates were changed in the case to make it a fictional mortgage giant and to update the financials to the current day. All three groups received instruction in the roles and duties of boards of directors from the primary researcher and from a local bank president and his board chairman before the role-plays began (see below), and each student "director" was provided details about their lucrative pay packages which included both salary and stock in the company. The two test groups were given additional treatments: one test group received instruction in the use of an ethical decision-making framework (covering one class period) and the other test group received a lecture about the potential negative influences of organizational heuristics and biases (covering one class period).

The local bank president was also recruited by the primary researcher to assist in the board room role-play simulations by playing the role of the fictional company

President/CEO. Prior to the board meeting simulations each group discussed the case in detail, identified the ethical problem behavior manifested by the President/CEO in the case, established a brief meeting agenda, and planned how they intended to address the main problems that their company was facing. All groups successfully identified that the main problems facing their company were that 1) the company mortgage loan portfolio was severely deteriorating in quality thereby increasing risk of defaults and buy backs from secondary mortgage markets, and 2) erroneous and misleading information about the strength and quality of the loan portfolio was being provided to ratings agencies and the public. Both of these problems were as a result of inappropriate actions by the President/CEO.

In the third and fourth weeks after the groups examined and discussed the case data, each group met separately with the fictional President/CEO in a role-play situation that simulated a board of directors' meeting. The meetings were videotaped to provide the researcher a record of observational data from which to draw conclusions about group dynamics in a group decision-making process. Each meeting was scheduled on a different date and each meeting lasted one hour and 15 minutes, of which approximately one hour consisted of the actual role-play and 15 minutes served as debriefing time for general discussion about the role-play experience, what the board was able to accomplish, what it was not able to accomplish, and why.

After the role-play simulations, the students finished the course of instruction which culminated in each student constructing a formal written report to meet course requirements. In the formal report students presented their respective analyses and evaluations of the case data, reflected upon the board meeting dynamics and results, made recommendations for a course of action to resolve the ethical problem in the case, and justified their recommendations about how to move the company forward. At the end of the course, the DIT-2 posttest was administered to all students.

Findings

One objective was to see if the students in their roles as directors would demand that the President/CEO release the true nature of the toxic assets to the ratings agencies in compliance with the company's fiduciary and moral responsibility to be truthful and transparent. Another objective was to see if the students as directors would take any action as a board to mandate a different corporate lending strategy in order to improve the quality of the deteriorating loan portfolio. During each role-play, however, the President/CEO was forceful in advocating the legal but morally inappropriate strategy of not revealing critical information to stock ratings agencies regarding potentially highly toxic assets on the company's books. The following is a summarization of the role-play interactions and the pretest-posttest results from the Defining Issues Tests for each of the three groups: Control Group, Test Group A and Test Group B.

Control Group

The role-play session began when one female student board member brought up to the President the deteriorating quality of the company's loan portfolio due to the large increase in very low FICO scores being accepted for extending credit, and the large increase in loans made to borrowers without supporting documentation as to income and employment. The President countered that he was growing the company (as the board had hired him to do) and was performing a service to offer loans to a broad market of American homeowners. When pressed on the risky low FICO scores by another board member, the President dodged the question and got defensive about the issue being addressed as "his" problem, countering that any problem that the board felt was "his problem" was in fact "their" problem. He brought up the fact that nationally FICO scores were declining for other lenders as well.

The conversation carried on with most of the students making points that were in fact chastisements of the President's management decisions, and the President naturally became increasingly defensive and aggressive in his responses. He echoed his earlier claims that he was in fact doing the board's bidding by trying to grow the company and insisted that he was acting in good faith by putting many people who would not otherwise have homes into them – that he was benefiting society by helping marginally qualified borrowers buy homes. He argued that the loans were being securitized and sold to Freddie Mac and Fannies Mae, and that most of the marginally risky loans were also guaranteed by government programs.

When challenged by board members about the transparency and truthfulness of the financial disclosures he had made to ratings agencies and in public forums about the strength and quality of the company's loan portfolio and lending practices (several untrue statement he made in the case), the President challenged the board with the notion that if some of the details were made public, there would likely be lawsuits in which the board members would also be included as defendants. He asked the board directly if they were willing to be sued. When one board member stated that the company couldn't keep doing what it was doing by making highly risky loans, the President put the board on the spot by demanding that they "take action" and "make a motion." Finally one board member made the motion that all future loans made by the company should adhere to the standards of credit worthiness established two years previously. The motion was seconded and passed with all member of the board except the President voting in favor. The role-play was terminated at that point and a fifteen minute debriefing was held.

The students were palpably relieved that the role-play was over and the President complimented the students on their tenacity, but pointed to the fact that they, as board members, did not stick to their guns in face of his withering rationalizations. He noted that they should have mandated an immediate halt to his unethical behavior and that one of their key failures was that none of the board members was successful in forming any alliances with other like-minded board members to take definitive action against the unethical President. While the control group did not take successful action to change the President's behavior as far as the truthfulness in corporate transparency issue, they were successful to some degree in successfully addressing the deteriorating loan portfolio problem. The role-plays in the test groups will be discussed next.

Test Group A

This group received the lecture on the use of an ethical decision-making framework before their role-play with the bank President. The board meeting simulation opened similarly to the control group meeting with students making accusations against the President about his questionable actions with regard to transparency and toxic loans. The President reminded the directors that he was the person that brought each of the members to the board and cautioned them that they should not take on the role of management – particularly the decisions of the President. He went on to state (as he did in each of the role-plays) that the economy and politics caused management to reevaluate the lending practices in order to remain competitive. He contended that the current problems being experienced by the company were created by secondary market forces.

At one point the tone of the meeting became combative. One director made a forceful motion to remove the president from office, which set the stage for a heated exchange:

> President: "Here's the deal! It's either [director's name] or me! Keep it in mind!"
>
> Director (who made the motion): "He's hiding behind the numbers which are fake. [He's] putting the organization into risk of failure!"
>
> President (defensively): "I started this company and I serve the community. I felt pressure from the board to expand earnings and did it the best way I could!"
>
> Secretary: (restated the motion)
>
> President: "Nobody has guts enough to second that! It's either [director's name] or me!
>
> Another director: "Were all in this together. You're a big boy! Take responsibility."
>
> President: "I'm guilty of listening to my board!"

The tension quickly subsided after the second director made the point that they were all "in this together," but the motion to remove the President did not receive a second. The President continued to defend his actions and stated that the problems would go away in time and that to restate financials would be extremely damaging to the company. When questioned if he meant to just "sweep it under the rug," he concurred: "Let it lie low until we get more time." The role-play was concluded with no motions successfully passed and was followed by a debriefing session wherein the President complimented the students on their understanding of the issues, but alluded to their failure to stick to their principals in the face of the strong push back by the President.

Test Group B

Test Group B received the lecture on the potentially harmful effects of organizational heuristics and biases. After the chairman obtained approval of the previous meeting minutes, he made a motion to discuss the current situation with regards to the loan portfolio. As in the previous role-plays, the directors began to chastise the President for the deteriorating quality of the loan portfolio and the untruthful statements about company financials to the rating agencies and the public. And as in previous meetings, the President defended his actions, rationalized any apparent wrongdoing, and dodged the criticisms by changing the subject and challenging the directors' positions.

Towards the end of the role-play one director made a motion to restate the financials to the public and the ratings agencies and received a second on the motion. During the discussion of the motion, the conversation drifted to the possibility of bringing in an outside analyst to help assess the financials, to which the President stated that he would fight the analyst idea vehemently. The chairman brought the conversation back to the original motion and called for a vote. The motion to make corrected statements about the financials passed five to four. Later in the meeting the chairman suggested the possibility of bringing in an outside ethics consultant to audit the company's ethical behavior and assurance processes and procedures, to which the President objected. Surprisingly, another director spoke up and supported the President in his resistance to the idea of bringing in an outside ethics consultant and, furthermore, supported the President in the notion that company profits are more important than worrying about an ethics audit. The role-play ended and was followed by a fifteen minute debriefing in which the President again complimented the students on their preparation and the fact that they actually got something decided, albeit only with regard to one of the two ethical problems in the case.

DIT Data Analysis

Table 1 shows the pretest scores for the two measures of post-conventional moral judgment, i.e. the P score and the N2 score (see Rest, et al., 1999, for a discussion of post- conventional moral judgment measurement using the DIT). The pretest DIT-2 scores were analyzed using ANOVA to determine if there were any differences in levels of moral judgment among the three groups of students, and none were found.

Table 1

Pretest Levels of Post Conventional Moral Reasoning by Group

TEST GROUP		Post Conventional (P score)	N2SCORE
Control	Mean	21.3333	24.5255
n = 9	Std. Deviation	11.87434	14.06254
Test A	Mean	32.7500	35.9646
n = 8	Std. Deviation	9.31589	8.73380
Test B	Mean	26.7500	29.3738
n = 8	Std. Deviation	14.53813	14.21365
Total	Mean	26.7200	29.7375
n = 25	Std. Deviation	12.52837	13.04790

Pretest–posttest data were analyzed for each group and while no statistically significant increases in moral judgment were found, all groups showed slight improvements in their moral judgment scores. Table 2 shows the pretest–posttest scores for each group.

Table 2

Pretest – Posttest P scores and N2 Scores

		Post conventional (P score)		N2SCORE	
		Mean	**Std. Dev.**	**Mean**	**Std. Dev.**
Control Group	pre	21.333	11.87434	24.5255	14.06254
	post	25.7541	11.58555	30.6063	11.61068
Test A	pre	32.7500	9.31589	35.9646	8.73380
	post	38.1596	8.03091	41.4896	6.77844
Test B	pre	26.7500	14.53813	29.3738	14.21365
	post	27.7500	13.15566	32.8274	12.62230

Further analysis of the DIT data was conducted to determine the levels at which the respondents did make their moral decisions. Table 3 displays the respective stage-level scores (stages 2 through 6). The high mean scores in stage 4 are evidence that the respondents in all of the groups primarily utilized maintaining-norms schema in their moral judgments.

Table 3
Average Stage-Level Moral Reasoning

TEST GROUP		Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Control	Mean	5.2222	9.6667	**20.7778**	8.5556	2.1111
n = 9	Std. Deviation	4.11636	6.57647	4.86769	4.92725	1.90029
Test A	Mean	4.5000	7.8750	**19.8750**	12.6250	3.7500
n = 8	Std. Deviation	1.69031	4.91172	7.35697	4.56501	2.91548
Test B	Mean	5.2500	8.6250	**21.6250**	11.1250	2.2500
n = 8	Std. Deviation	5.65054	3.20435	5.20817	5.96268	2.76457

The finding that the respondents primarily used maintaining-norms schema in their moral judgments corroborates the outcomes from the three role-play simulations. In each of the three group role-plays, the respondents, while voicing their disagreement with the ethicality of the President/CEO's decisions with regard to financial transparency and the quality of the loan portfolio, did not take action against those decisions except in two instances where weak motions were made and passed on a singular issue. In effect, the norms of behavior established by the President (as an authority figure) held sway in most of the decisions rendered by the respective boards of directors. In other words, the obedience to authority heuristic played a major role in changing the respondents' decision making behaviors.

The findings also seem to confirm the influence of the framing heuristic on the student respondents in this study as identified by Kahneman and Tversky (1984) in the section, Theoretical Review for the Study, above. Similarly, the findings seem to indicate that the obedience to authority heuristic (Milgram, 1963, 1974; Trevino, Weaver, Gibson, & Toffler, 1999; Smith, Simpson & Huang, 2007) also had a profound effect on student group decision making in this study, even despite the status of equality that board members have with the President. As discussed with regard to concessions extended to authority figures in decision making (Snell, 1999; Jackall, 1988), the findings seem to indicate that such concessions were also made to the authority figure in this study. While the authority figure in the study was challenged to some degree by individuals within each group (control and test groups). the results also seem to confirm the influence of herding behavior (Gonzalez, Modernell & Paris, 2006) since each of the groups deferred to the authority figure in the study without any single individual or alliance of individuals influencing the groups sufficiently enough to challenge all of the errant decisions by the authority figure.

Conclusions and Recommendations

While the respondent "board members" in all sample groups were in agreement about the unethical nature of the financial disclosure statements made by the company President/CEO prior to the board of directors meeting simulations, each group was significantly influenced to diverge from their individually held beliefs during the board meetings by the forceful chief executive officer. These results seem to indicate that obedience to authority can have a profound influence on individual decision makers to support unethical behavior even when they individually would not support such behavior.

While there were increases in each group's average moral judgment scores, they were not statistically significant. Further, all groups, including the control group, had slight increases in their moral judgment scores. Therefore the two interventions (ethical decision-making instruction and heuristics and biases instruction) did not significantly increase moral judgments. Had the interventions been effective as hypothesized, the board room decisions rendered by the test groups would likely have been more ethical. Therefore hypothesis 1 and 2 are rejected.

The high level-four DIT scores indicate that the respondents were using the maintaining norms schema in their moral deliberations. The maintaining norms schema focuses in part on maintaining the social order and obedience to accepted lines of authority. The prevalence of the maintaining norms schema in the respondents' moral judgments corroborates their submission to the forceful President/CEO authority figure embodied in the role-plays. The respondents diminished the value of their own ethical beliefs in deference to the authority figure. This seems to indicate that forceful authority figures involved in group decision making can have a profoundly negative effect on the final decisions rendered by the group.

Further research in this area is needed and is scheduled to be undertaken by this researcher working in cooperation with another researcher. The next phase of this research will involve a larger sample group of banking board members in a series of decisions that will also investigate the obedience to authority heuristic. While research designed to identify variables that can cause individuals involved in group decision making to not follow their own moral compasses is important, education about these dangerous heuristics is also needed all levels in business education, from secondary through post-secondary education. Instruction in the use of ethical decision making frameworks can equip students with some of the cognitive tools they will need to navigate the world of ethical business decision making, but they must also be made aware of the organizational pressures that can cause them to depart from cogent cognitive analysis and instead substitute less than ethical approaches to their decisions.

References

Gandossy, R., & Sonnenfeld, J. (2005). 'I see nothing, I hear nothing': Culture, corruption and apathy. *International Journal of Disclosure & Governance*, *2*(3), 228–243.

Gonzalez, M., Modernel, R. & Paris, E. (2006). Herding behavior inside the board: An experimental approach. *Corporate Governance: An International Review*, *14*(5), pp. 388–405.

Jackall, R. 1988. *Moral mazes: The world of corporate managers.* New York: Oxford University Press.

Jeffrey, C. (1993). Ethical development of accounting students, non-accounting business students, and liberal arts students. *Issues in Accounting Education, 8*(1), 86-96.

Kahneman, D. & Tversky, A. (1984). Choices, values, and frames, *American Psychologist*, *39*(4), 341– 350.

Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D. Goslin (Ed.), *Handbook of Socialization Theory and Research,* (pp. 347-480), Chicago: Rand McNally.

Kohlberg, L. (1981). *Essays on moral development: The philosophy of moral development.* New York: Harper & Row.

Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371–378.

Milgram, S. (1974). *Obedience to authority*. Harper and Row.

Morck, R. (2008). Behavioral finance in corporate governance: Economics and ethics of the devil's advocate. *Journal of Management & Governance, 12*(2), 179-200.

Prentice, R. (2004). Teaching ethics, heuristics, and biases, *Journal of Business Ethics Education*, *1*(1), 57 – 74

Smith, C., Simpson, S. & Huang, C. (2007). Why managers fail to do the right thing: An empirical study of unethical and illegal conduct. *Business Ethics Quarterly*, *17*(4), 633– 667.

Snell, R. (1999). Obedience to authority and ethical dilemmas in Hong Kong companies. *Business Ethics Quarterly*, *9*(3), 507 – 526,

Rest, J., & Narvaez, D. (1979), *Development in judging moral issues*. Minneapolis:
University of Minnesota Press.

Rest, J., Narvaez, D., Bebeau, M., & Thoma, S. (1999). *Postconventional moral thinking: A Neo-Kohlbergian approach*. Mahwah, NJ: Lawrence Erlbaum Associates.

Rest, J., Narvaez, D., Bebeau, M., & Thoma, S. (2000). A neo-Kohlbergian approach to morality research. *Journal of Moral Education, 29*(4), 381 – 395.

Trevino, L., Weaver, G., Gibson, D. & Toffler, B. (1999). Managing ethics and legal compliance: What works and what hurts. *California Management Review*, *41*(2), 131– 151.